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(71) Applicants (for all designated States except US): **Electronics and Telecommunications Research Institute** [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejeon, 305-350 (KR). **SAMSUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 442-742 (KR). **KT Corporation** [KR/KR]; 206, Jungja-dong, Bundang-gu, Seongnam-city,, Gyeonggi-do, 463-711 (KR). **SK Telecom**

Co., Ltd. [KR/KR]; 99, Seorin-dong, Jongro-gu, Seoul, 110-110 (KR). **KTFREETEL CO., LTD.** [KR/KR]; 890-20, Daechi-dong, Gangnam-gu, Seoul, 135-280 (KR). **HANARO TELECOM, INC.** [KR/KR]; Shindongah Fire & Marine Insurance Building 43, Taepyeongno 2-ga, Jung-gu, Seoul, 100-733 (KR).

(72) Inventors; and

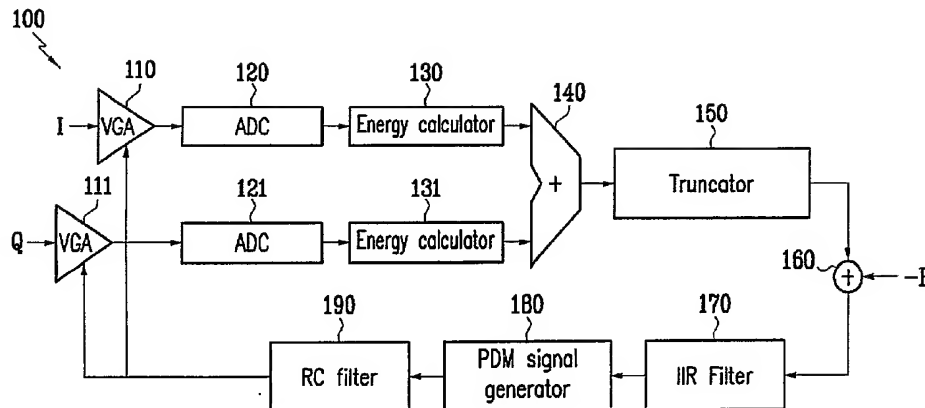
(75) Inventors/Applicants (for US only): **LEE, Yong-Su** [KR/KR]; 302, 954, Galma-dong, Seo-gu, Daejeon-city, 302-171 (KR). **PARK, Youn-Ok** [KR/KR]; Cheonggu Narae Apt. 101-1002, Jeonmin-dong, Yuseong-gu, Daejeon-city, 305-390 (KR). **KIM, Jun-Woo** [KR/KR]; Yongsin Evervill 306, 118-20, Sinseong-dong, Yuseong-gu, Daejeon-city, 305-345 (KR). **KIM, Dae-Ho** [KR/KR]; 236-1, Gajeong-dong, Yuseong-gu, Daejeon-city, 305-350 (KR).

(74) Agent: **YOU ME PATENT AND LAW FIRM**; Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

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(54) Title: AUTOMATIC GAIN CONTROL APPARATUS AND METHOD IN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING



(57) Abstract: Disclosed is an automatic gain control device in an orthogonal frequency division multiplexing system. A variable gain amplifier controls a gain of an input signal; an energy calculator calculates an energy of the input signal; a truncator accumulates the calculated energies, finds an average thereof, and generates a DC offset of the input signal; a subtracter subtracts a predefined reference value from the DC offset, and outputs a signal; and an RC filter feeds the value output by the subtracter back to the variable gain amplifier so that the value output by the subtracter may be used for an automatic gain control. The predefined reference value given to be 4.Ov is a reference power generated based on a saturation to RMS ratio for minimizing the bit error rate of the orthogonal frequency division multiplexing system.

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